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BIRDS
OF THE REGION OF
POINT BARROW, ALASKA

By

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a n d

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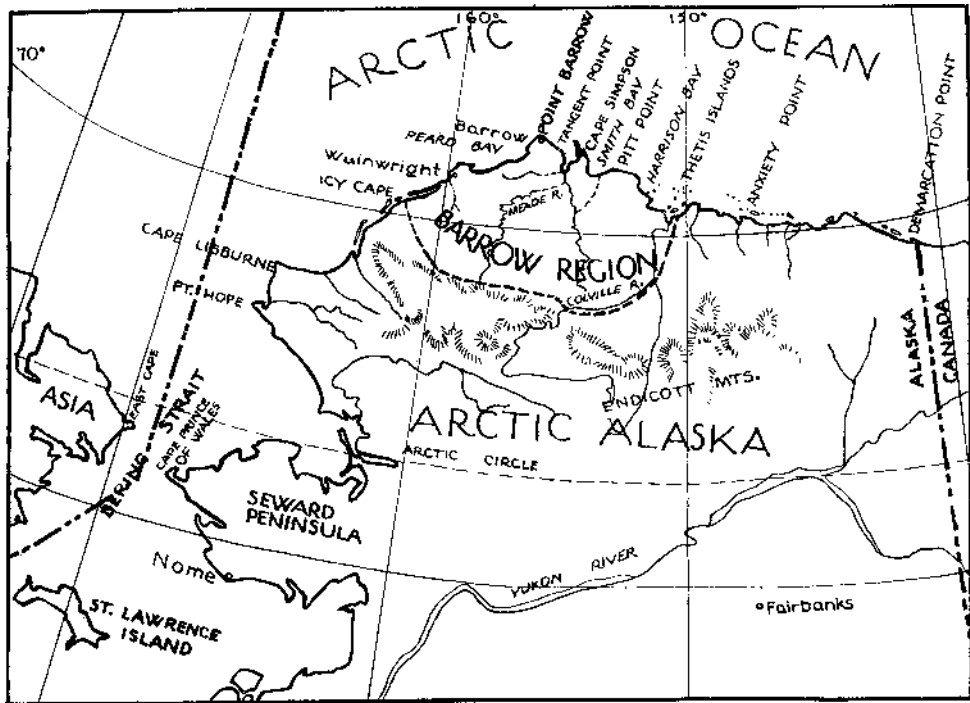
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In Volume I of the Transactions of the Chicago Academy of Sciences, published in 1867, appeared the first paper on Alaskan birds after American occupation, under the title "List of Birds of Alaska, with Biographical Notes" By Wm. H. Dall and H. M. Bannister. This work, now one of the most difficult publications to obtain, was based on the collections made on the Russo-American Telegraph Expedition in northern Alaska, on which Robert Kennicott, the first director of the Academy, lost his life.

At a recent meeting of the Board of Scientific Governors, an editorial committee composed of Dr. V. O. Graham, Messrs. F. R. Dickinson and Tappan Gregory was appointed to work with the director in resuming the printing of short papers, and it is planned to use space in our quarterly bulletin for the purpose. It seems appropriate, therefore, to publish the following notes on a region which has been of interest to members of the Academy. The representative of the Academy at Barrow, Mr. Charles D. Brower has made such notable contributions that the collections now have a very fine representation of arctic birds.

The officers of the Illinois Audubon Society voted to make the space, which has been reserved for their organization, available for these papers; other articles at hand, dealing with natural history will appear as space permits as joint contributions of the Illinois Audubon Society and the Academy.



BIRDS OF THE REGION OF POINT BARROW, ALASKA

By

Alfred M. Bailey, Charles D. Brower, and Louis B. Bishop

The birds of the northern coast of Alaska have become rather well known during the past thirty years, due to the activities of various collectors, but the records are so scattered, and so many of the publications are not readily available, that it seems advisable to compile the notes in one list.

Point Barrow, in latitude $71^{\circ} 23'$ north and longitude $156^{\circ} 40'$ west, the northernmost point of Alaska, is about 300 miles north of the arctic circle; it was first discovered by Mr. Elson, master of *H. M. S. Blossom*, commanded by Captain Beechey, in August, 1826, and is described by Beechey¹ in the reports of this voyage to the Pacific and Arctic during the years 1825-8. According to Ray,² the next visits by white men were made by Captains Dease and Simpson in July, 1837, who came down the Mackenzie to the ocean and followed along the coast to Return Reef, where Franklin was forced back by ice in 1826; there they found the ice fast to the land, and they walked the remainder of the way to the northern point. Nearly twenty years later, 1852-4, *H. M. S. Plover* wintered at Barrow, and from that time on the coast was visited by whalers who followed the bowhead whale into the arctic pack.

The first ornithological records of importance specifically from Barrow, are those of Dr. E. W. Nelson, in August, 1881.³ An expedition led by Lieut. P. H. Ray spent two years, from September 8, 1881 to August 25, 1883, at Barrow, and the ornithological report was prepared by John Murdoch. He collected or ob-

1. Narrative of a voyage to the Pacific and Bering Strait to co-operate with the Polar Expedition, Performed in His Majesty's Ship *Blossom*, under the Command of Captain F. W. Beechey, R. N., in the years 1825, 26, 27, 28. London, 1831, p. 301, ff.

2. Report of the International Polar Expedition to Point Barrow, Alaska. Washington, 1885, p. 22.

3. E. W. Nelson, Cruise of the Revenue Steamer *Corwin*, 1883.

served fifty-four species and sub-species, and his notes are included in the report of the expedition. ⁴ Murdoch questioned some of Dr. Nelson's observations at Barrow, ⁵ because of Nelson's short stay at the point, and Nelson replied rather sharply, ⁶ stating that two years of field work by any one man in any one place did not necessarily exhaust the possibilities for further research. Nelson's contention has been well sustained, for all the species questioned by Murdoch and many others have been taken in later years, so that the Barrow list now includes more than one hundred and twenty species and subspecies.

The E. A. McIlhenny Expedition worked at Point Barrow from August, 1897, to the same month in 1898. Dr. Witmer Stone reported on the splendid collection of birds and mammals, ⁷ which added thirteen species to the list of birds of the Barrow area. Other naturalists spent a few days at a time in the region during the years following: F. S. Hershey made a cruise in the coastguard cutter *Bear* to Barrow in 1914; Joseph Dixon touched at Wainwright the latter part of August, 1914, but obtained no records for the region. Alfred M. Bailey, assisted by R. W. Hendee, led the Arctic Expedition for the Colorado Museum of Natural History, which made its headquarters at Wainwright, one hundred miles down the coast from Barrow, and worked from August, 1921, to August, 1922, making an extensive collection. Bailey recorded their notes on the birds listing several species new to the region. ⁸ Bailey and Hendee made trips to Barrow from Wainwright and secured the co-operation of Charles D. Brower, who since then has made an intensive study of the birds of that part of the arctic coast, and has sent specimens to the Colorado Museum of Natural History, the Chicago Academy of Sciences, the San Diego Museum of Natural History, and to various individuals, particularly to Dr. Louis B. Bishop.

Brower has made his home at Point Barrow since 1884, and is familiar with the entire region covered by these notes; he has made many trips of exploration with the Eskimos at all times of the year, and so has been able to add many records from the arctic coast.

Bishop has included in this article notes on all the Barrow specimens of interest in his collection, and is responsible for the identification of the birds in his possession, as well as for certain specimens in the Colorado Museum of Natural History and in the Chicago Academy of Sciences. Brower and Bailey are responsible for ranges, nesting habits, and other items, except those taken from other reports as indicated, while Bailey has compiled the various records.

We have considered that great coastal plain north of the Endicott Range, lying between Icy Cape on the southwest and the Colville River on the east, as the Barrow Region. Icy Cape is about 150 miles from the village of Barrow, and the mouth of the Colville River is a similar distance to the southeast. Conditions are much the same in all parts of this area--low lying tundra facing the Arctic Ocean, with barren grounds reaching back to the foothills; small streams have cut their way through the arctic prairies, and along sheltered banks, inland from the coast, are stands of arctic willows which offer excellent homes for small birds.

The tundra is covered with short growths of grass and moss, and is dotted with a myriad of lakes and lagoons, affording excellent breeding grounds for the numbers of water fowl which migrate beyond the arctic circle each season. The summer is very short, so the spring migration usually opens with a flood of winged visitors who begin nesting almost immediately after their arrival. The young of most species are on the wing, and many of the adults and young have started to drift southward by the middle of August. Brower, who now ranks as Barrow's "oldest inhabitant," is responsible for the assertion that Barrow has

4. John Murdoch, Report International Polar Expedition, 1885.

5. Idem., Auk, II, 200-201, 1885.

6. E. W. Nelson, Auk, II, 239-241, 1885.

7. Witmer Stone, Proc. Acad. Nat. Sci. Phila., 1900 (1901), 4-49.

8. Alfred M. Bailey, Condor, XXVII and XXVIII, 1925-1926.

the finest all-year-around climate in the world, and in addition is the best of all winter resorts! Temperatures are rather uniform during the winter, it is rarely much lower than forty degrees below zero, although Brower does remember one month, in years past, when the temperature failed to rise above fifty below.

It has been the custom of all collectors in the north to rely upon the help of the natives in securing and caring for specimens, and as the natives take a real interest in the work, many excellent records have been secured which otherwise would have been lost. Scarcely a season goes by without another winged stranger appearing at Barrow and many of the records included in the following list are based upon single specimens. Several Asiatic wanderers, such as the rufous-necked sandpiper, the dotterel, and red-spotted blue-throat, have found their way to the northern point, while many North American birds taken there seem just as far out of their range. It would appear that most of the migrants which regularly range into Canada would, in time, be taken within the area covered by this paper. Many birds have undoubtedly been blown from their course by storms, while others probably range northward after their breeding season, and are more common than the few records indicate. It must be understood that the seasons are so variable at Barrow, and that conditions differ so from year to year, that some species may be few in numbers at one time and very plentiful at another. Food supply, however, is probably more important than weather in determining the number of birds.

All the species listed below are recognized from the Barrow region on the basis of specimens actually collected, except one or two, as noted. Wherever specimens are likely to be of interest, we have included their catalogue numbers, with initials of the collection in which they are preserved. Those in the L. B. Bishop collection are indicated by "L.B.B."; in the Colorado Museum of Natural History, by "C.M.N.H."; in the Chicago Academy of Sciences, by "C.A.S."; in the San Diego Museum, by "S.D.M."; and, in the Philadelphia Academy of Natural Sciences, by "P.A.N.S." We have not attempted to give extensive notes on the habits or on the plumage of the birds—such information is contained in the various published lists, and the reader is referred to the bibliography for further information. The authors wish to express their indebtedness to the late Mr. Outram Bangs and to Messrs. James L. Peters, L. M. Huey, George Willett, J. D. Figgins, and Stanley Jewett for aid in identifying specimens, and to Mrs. Henry Greist of Point Barrow, who preserved several interesting specimens during Mr. Brower's absence in 1931. Mrs. Greist also sent specimens to R. M. Barnes, records which are herewith included. All specimens collected by Brower, unless otherwise indicated were taken in the vicinity of the village of Barrow.



Gavia adamsi Yellow-billed Loon. At times this big loon is extremely common during migration. In the latter part of May, when the winds are favorable, it is not unusual to see hundreds in the course of a day, as they follow along the open leads. Their nests are upon the larger inland lakes, and as travel is difficult at that season - the first two weeks of July—the nests are infrequently found. The majority of these loons nest eastward of the Barrow region, but they are regular nesting birds of the area, and several sets of their eggs have been collected in the past few years. The natives believe the breeding bird to be extremely vicious, but a pair with a nest at Cape Prince of Wales could not be approached within rifle range.⁹

Gavia arctica pacifica Pacific Loon. These are common birds along the arctic coast of Alaska. They arrive at Barrow about the first of June and nest throughout the region upon the shores of tundra lakes. Fresh eggs are found during the first week of July. Many are seen along the coast during the fall, but they are usually wild and difficult to approach. The Eskimos claim that the ponds often freeze before the young are able to fly, and that well into September it is a common sight to see adults flying inland, carrying fish.

Gavia arctica viridigularis Green-throated Loon. This form seems to occur regularly at Cape Prince of Wales, but only three specimens have been taken within the Barrow region. An adult male and female taken June 1, and June 26, 1928, respectively, (L.B.B. 42717-8) are not typical, and may be intergrades. There is a specimen in the Dwight Jr. (No. 8259) collection at the American Museum of Natural History, which Dwight had recognized, and placed in a tray with Asiatic skins. It is a male adult taken by E. A. McIlhenny August 15, 1899.

Gavia stellata Red-throated Loon. This is the common loon of the region, and a characteristic sound of the arctic is their resonant, far reaching, "Kok-arrow." They arrive early in June and start nesting in July. Fresh eggs are found along the grass grown borders of tundra lakes about July 5th. These birds seem to prefer marshy areas for their nests, and will often choose a little grass grown waterway, while the other divers prefer plenty of open water. Like the Pacific loon, this form comes to the ocean in the fall, and it is a common sight to see adults and young swimming just beyond the first row of breakers. The majority leaves for the south before the middle of September, but a few may be observed in early October.

Colymbus auritus Horned Grebe. Two specimens have been recorded, an adult taken early in July, 1930 (L.B.B. 45286), which was secured in the ice near Flaxman Island by an Eskimo, and another, a beautiful adult, taken offshore at Barrow, May 15, 1931, (C.A.S. 5235).

Puffinus tenuirostris Slender-billed Shearwater. This form is irregular in occurrence. Hendee found a dead specimen upon the beach at Wainwright, September 4, 1921. Brower reports them extremely common occasionally. They occurred near Barrow by thousands from September to October, 1929; the only ones taken, however, were collected from slush ice where they had apparently been trapped, and some which the Eskimos found frozen in the ice. Two specimens in the Bishop collection were found dead thirty to thirty-five miles inland, November 13-19, 1929, the birds doubtlessly mistaking the flat, snow-covered tundra for the level sea ice. There are three specimens from the region in the C.A.S. collection.

9. Ibid., XXVII, 29, 1925.

Fulmarus glacialis rodgersi Pacific Fulmar. These wonderful fliers occur offshore regularly during the summer, as stragglers from the breeding grounds. Hendee took four specimens at Wainwright, two of which were caught in traps built for foxes, on June 14; the other two were taken July 27 and August 5. Brower has taken a few specimens, among them an adult female in the L.B.B. collection which was found dead upon the beach September 11. 1929. There are two females (Nos. 14968-9) in the S.D.M.

Phalacrocorax pelagicus pelagicus Pelagic Cormorant. This is a straggler on the coast, and has only been noted a few times. Bailey records one found dead at Wainwright in mid-winter (January 24, 1922), and Brower saw one over the lead in the spring of 1930. He reports shooting one about thirty years ago which was such a curiosity with the natives that they traded a white fox for it so they could use the feathers for charms. McIlhenny collected a male June 8, 1898, which Stone called *robustus*.

Cygnus columbianus Whistling Swan. A few stragglers are seen each season; the Eskimos say that a few nest near Cape Halkett, and Brower secured a young male from along the Meade River (L.B.B. 42954) in late September, 1928. Mrs. Greist secured a beautiful adult in 1932. which is now mounted in the R. M. Barnes collection.

Branta canadensis leucopareia Lesser Canada Goose. Small geese of this genus are rare at Barrow, occurring merely as stragglers, although we have a nesting record for the past season. Two birds (C.A.S. 5251-5252) were secured along the Meade River with a set of six eggs (W. C. Hanna collection) . The birds appear to be typical examples of the race described by Taverner. In addition, we have another specimen, an adult male collected by Brower east of Barrow, June 10, 1928 (L.B.B. 42791).

Branta canadensis hutchinsi Hutchin's Goose,

Branta canadensis minima Cackling Goose

In addition to the birds mentioned above as *leucoparia*, we have five other small geese from the region. Hendee collected three specimens (C.M.N.H. 8089-90-91), two females and a male, at Wainwright July 5, 1922.¹⁰ The others are an adult female taken June 5, 1928 near Barrow, and an adult male collected to the eastward June 20, 1930 (L.B.B. 42792-45294). The two birds in the Bishop collection have the pale underparts of *hutchinsi*, as defined by Taverner, and must be referred to that form.

The three birds taken by Hendee measure within the range of *minima*, but the two females are light-breasted, entirely different appearing birds from the dark colored male. It is possible that this difference in color is due to age, but the birds could not be less than ten months old. If these same birds were taken in the eastern part of the United States, there is no doubt they would be identified as *hutchinsi*. The five birds we have from the area measure as follows:

		Culmen	Wing	Tarsus	Tail
C.M.N.H.	8091 Male	31	406	76	128
C.M.N.H.	8090 Female	29	346	63	120
C.M.N.H.	8089 Female	31	360	65	123
L.B.B.	42792 Female	33	390	63	
L.B.B.	45294 Male	35	405	63	

10. Ibid.. 205.

Branta bernicla hrota American Brant. Among the brant collected at Wainwright and Icy Cape during the fall of 1921 by Bailey and Hendee, are several with light bellies; one a female collected at Icy Cape (C.M.N.H. 8216) September 11, appears to be typical *hrota*, with the underparts strongly contrasted with the dark breast, and the white of the neck confined to a patch on each side. It is probable that the nesting grounds of *hrota* and *nigricans* meet to the eastward, and that a few *hrota* accompany the western birds on the fall migration.¹¹

Branta nigricans Black Brant. This is the most common of all the nesting ducks and geese near Barrow, their nests being found along the coastal plain in marshy areas, on little islands, or upon the shores of tundra lakes. The sets vary from three to seven, and it is not unusual to find fresh eggs in a nest which contains also eggs well incubated. The birds arrive the last week in May, and nesting operations are advanced by the latter part of June, and young of the year are on the wing by mid-August. There are certain favored spots along the coast where the brant gather in the fall to feed upon seaweed, and the Eskimos go there each season to shoot their winter supply of birds. Several hundred may be killed by a single hunter in a few days' time.¹² The brant start south rather early, the first flight down the coast being about August 15; many are on their way by the end of the month, and few are to be seen after the second week of September.

Philacte canagica Emperor Goose. This is a mere straggler within the area. The main range of the species is from Seward Peninsula southward. Brower took two adults, male and female (L.B.B. 43823-4) at Barrow July 15, 1929. The Eskimos had never seen one before.

Anser albifrons albifrons White-fronted Goose. This is a rather common nesting bird of the region. It is found in marshy areas along the rivers from one to twenty miles inland. According to the Eskimos and to Brower, the bird does not occur farther away from the ocean. It is not unusual to find small nesting colonies-as many as fifteen to twenty pairs having their nests within an area of a quarter of a mile.

The first arrivals were noted at Wainwright May 27, 1922, and they were plentiful after that date. Two sets of three eggs each were secured July 12 and 25 at Wainwright, and Brower has taken many sets averaging about five eggs, near Barrow in recent years. The best nesting ground for these geese seems to be in the vicinity of Smith's Bay, forty miles east of Barrow; they are found in a strip extending from the beach ten miles inland. The nesting bird lies rather close, oftentimes flushing almost under foot. There are breeding specimens in the L.B.B., C.M.N.H., and C.A.S. collections.

Chen hyperborea hyperborea Lesser Snow Goose. This species was once a common bird near Barrow, but its nests were destroyed by reindeer and herders, and few birds are now seen. An occasional pair nest along the inland rivers throughout the region, and a pair of adults and three downy young were taken along the Chipp River in July, 1928. The birds occur regularly during migration, and a few are killed each season near the native villages. There are several specimens from the region in the L.B.B., C.M.N.H., and C.A.S. collections.

11. Ibid., 203.

12. Ibid., 203.

Dafila acuta acuta European Pintail. Bailey first recorded this form from the coast of Alaska on the basis of specimens identified by Dr. Oberholser.¹³ Later, Dr. Oberholser, in the light of additional material, decided that he was in error, and his decision was published by Bailey in the Condor, 1930.

Defila acuta acuta however, must be considered as a bird of the Alaskan shores, for Brower took a typical pair (L.B.B. 457C6-7) at Barrow, April 19, 1930, when everything was frozen along the arctic, with only occasional potholes in the ocean. Tundra lakes and rivers to the southward were frozen for weeks afterward, and the only logical conclusion is that these birds wandered up the coast from Bering Strait. Brower noticed the difference in size and wrote that the birds were the earliest ever taken, and that they were shot near the village in the midst of a snowstorm. The birds were emaciated. Bishop examined the pintails from the arctic in the Colorado Museum of Natural History, and considered two, C.M.N.H. 9305 and 9870, male and female, taken at Wainwright June 17 and 22, 1922, as undoubtedly belonging to the European race. These birds had been identified by Dr. Oberholser, originally, as *acuta*. In addition to these Asiatic birds, there are six specimens in the S.D.M. which Mr. Huey identified as this race.

Dafila acuta tzitzihua American Pintail. These are fairly common near Barrow, where they nest on the higher knolls along the tundra lakes. They are more common inland than along the coast.

Nettion formosum Baikal Teal. The first record of the species for North America was a male taken by Bailey at Wainwright, September 2, 1921. The specimen is in the Colorado Museum of Natural History.¹⁴

Nyroca marila nearctica Greater Scaup Duck. The first record from the region was one taken at Wainwright October 13, 1921.¹⁵ Brower collected four specimens, an adult female September 30, 1927 (L.B.B. 42049), two juveniles, September 22, 1928 (L.B.B. 42948-9), and an adult male, July, 1931 (C.A.S. 5259).

Clangula hyemalis Old Squaw. This is a very common duck along the Alaskan coast; it arrives over the ocean leads about May 15, and starts nesting along the tundra lakes and on sand islands the latter part of June. The nests, with five or more eggs, are beautifully lined with dark down which is used to cover the eggs when the old one leaves. Great rafts of the birds form offshore during the time they are moulting their wing feathers, and it is no uncommon sight to see hundreds banded together. They remain until well into October, at which time the ice is nearly a foot thick on the tundra ponds, and slush ice is forming in the ocean.

Polysticta stelleri Steller's Eider. This is a common form along the arctic coast, the first arriving at Wainwright the latter part of May (May 25, 1922). The main migration over the leads occurs about June 1st; most of them seem to pass to the eastward of the northern point. Scattered pairs are found over the tundra through the entire region under consideration; the nests are upon the ground along the shores of tundra lakes, and the eggs, usually seven or less, are well concealed in down when left by the female. The males, according to Brower, stay with the females until incubation starts, and then leave for the south. He has never seen a male incubating or with the young. Males occur in small numbers during the late summer months, however.

13. Ibid., 169.

14. Ibid., 169 and XXVI, 195, 1924.

15. Ibid., XXVII, 170, 1925.

Somateria v-nigra Pacific Eider. These birds are extremely common during the spring and fall migrations; they arrive the last week in May in numbers, and a few nest in scattered localities. Hendee found nests at Wainwright on June 30, and downy young were collected on August 5. They are not common in the locality in the fall, however, only a few being seen until late; then, birds which have nested to the eastward appear at Barrow on their southward trek. Very few of this species nest near Barrow, but their nests are numerous on the sand islands east of the Colville River. There are from five to six eggs, and the nests are well lined with down.

Somateria spectabilis King Eider. This species is very common at Barrow and along the whole coast during spring and fall migrations, but few remain to nest, the majority going to sand islands to the eastward. Brower has found a few nests from time to time, one of which contained sixteen eggs. The usual number is seven or less, and sometimes only three. The nests are upon the tundra or upon sandspits, and are well lined with down.

The migration of the eiders at Barrow is an unusual and wonderful sight. The birds drift northward in great flocks when winds are favorable, battalion after battalion straggling slowly over the open leads. They pass the whaling camps by thousands. But it is the flight of the males on their southward trek, as they abandon the females on the nesting grounds, that is the most interesting. There is a certain bit of sand beach bordering a great lagoon some miles away from Barrow, which is the favorite passing place of the eider, and thousands upon thousands pass regularly each season, from mid-July until early August. They seem to come in from islands offshore from Cape Halkett, or from shallow feeding grounds, and cross the favored bit of lagoon and beach. The natives have hunted at this particular spot for generations, and thousands of birds have been killed with the primitive weapons, and many thousands more have been killed with modern shot guns since the coining of white men, but the numbers of birds have not decreased. A few females and young appear during the latter part of the flight, but the majority arrives in September, alighting along the ocean and lagoons as they make a leisurely journey southward. Scattered flocks of adults of both sexes, and young of the year, are seen until late in the season; two flocks were observed on November 9, 1921.

Oftentimes, moulting eiders of all four species form great flocks to the southward of Barrow, drifting about in the open ocean. Brower reports several instances where the natives have driven the birds up on the beach and killed thousands. At Pinachugaruk, about thirty miles up the coast from Wainwright, fully seven thousand were killed in such a drive, in 1920, according to Jim Allen,¹⁶

Arctonetta fischeri Spectacled Eider. This is probably the rarest of the eiders along the north coast, but they occur regularly, and many are killed for food by the natives. They nest sparingly in situations similar to those of the Steller's eider, and the males depart for the south in the same manner. Few birds in eclipse plumage are taken. Hendee recorded these birds for the first time in the spring at Wainwright, on May 28, in company with a few Steller's. They nest in limited numbers in that vicinity, and Bailey and Hendee recorded old females with full grown young in late August and early September. These birds were exceedingly tame, and - of interest to one sojourning in the north - excellent eating. The main breeding ground of the birds seems to be to the eastward of Barrow, on the tundra, not far from the beach, near Cape Halkett and

16. Ibid., 201.

Cape Simpson. Brower has collected nests in that vicinity, and reports that five eggs are the average number in a nest.

Melanitta deglandi White-winged Scoter. McIlhenny collected a male in full plumage, June 22, 1898. This is a rare bird at Barrow, according to Brower; a few have been taken in recent years, but no specific date has been recorded. The white-winged scoter of this region has been described under the name *Melanitta deglandi dixonii*,¹⁷ but is included in the fourth edition of the check list only as a footnote.

Melanitta perspicillata Surf Scoter. This is a rare species within the Barrow area. Hendee took the first record on June 26, 1922, a fine male now in the Colorado Museum of Natural History. Brower has secured a few specimens from east of Barrow which were taken by natives in the fall as the birds were migrating up the Colville River. This seems to be a definite migration route of many of the tundra nesting birds, the flights being made up the various rivers south of the Endicott Range, over the passes of the mountains, and down the Colville, each spring, and a return journey in the fall. It is of interest to note that the primitive Eskimos had a similar trade route, by means of which the natives of the Arctic coast secured trade goods from far off Siberia. One surf scoter in the L.B.B. collection (45293) was an adult male taken east of Barrow August 1, 1930, and there is another male (5258) in the C.A.S. collection taken in the summer of 1931.

Mergus serrator Red-breasted Merganser. This species seems to be a straggler along the coast. Brower secured several birds in 1929 and 1930 which were shot along the beach about eight miles from Barrow. Two are in the Bishop collection, an adult female taken October 15, 1929, and an adult male, June 3, 1930; there are also three adults in the C.A.S. collection, a male and female, taken June 5, 1930, and a male taken in the summer of 1931.

Aquila chrysaetos canadensis Golden Eagle. Occasionally one of this species will wander from the mountains to the coast, but it is extremely rare. Brower has secured two specimens in recent years, one in 1928 which was found dead about fifteen miles from the village (S. D. M. 13303), and the other, a large unsexed adult from the Colville River, in June, 1930 (L.B.B. 45309).

Falco rusticolus obsoletus Gyrfalcon. These large hawks have been taken several times in the Barrow region. Murdoch recorded one under the name *Hierofalco gyrfalco sacer* (identified by Ridgway), which was taken at their station at Barrow when it alighted on the flagstaff, in the autumn of 1882. He saw others which he took to be this form. McIlhenny took two, September and November, 1897,¹⁸ and Brower secured a fine specimen Aug. 10, 1931 (C.A.S. 5249).

Falco peregrinus anatum Duck Hawk. This is a rare species in the area. Bailey lists one collected at Icy Cape September 6, 1922, and another observed the same day.¹⁹ Brower obtained a pair of adults (L.B.B. 46148-9) and a set of five eggs (collection of W. C. Hanna) from outside the area, in June, 1929. They were taken by a native in the Romanoff Mountains, 200 miles east of Barrow. He secured another fine specimen at Barrow in mottled plumage, July 21, 1932 (C.A.S. 5841).

17. W. Sprague Brooks, Bull. Mus. Comp. Zool. LIX, 393, 1915.

18. Stone, op. cit.

19. Bailey, Condor. XXVIII, 124, 1926.



ALASKAN PTARMIGAN

Lagopus lagopus alascensis Alaskan Ptarmigan. This is a common grouse in the area, especially among the willows. In the fall, many come along the coast to feed upon the leaves of the dwarfed willows, but they disappear, for the most part, during the dark days of winter. Many return in the spring if food is available. The dark feathers begin to appear on the head and neck about the middle of May, and a week or so later, these parts are nearly brown. Nesting starts the latter part of June. There is a set of eight eggs in the Hanna collection, secured by Brower along the Meade River, on June 15, 1932.

Lagopus rupestris kelloggae Rock Ptarmigan. This is essentially a bird of the hills, and while a few are found scattered over the tundra in the Barrow area, the majority of them live in the mountains far back from the coast. Bands of young with a few adults occur along the coast in the fall, especially to the eastward of Barrow. Hendee took a dozen specimens at Wainwright May 28-30, 1922, which were the only ones he saw during the entire season. In considering specimens from Barrow as *kelloggae*, we are merely following the ranges given in the fourth edition of the check list. Mr. Hanna has a set of eight eggs, secured by Brower along the Meade River, June 13, 1932.

Grus canadensis canadensis Little Brown Crane. Cranes are rarely seen within the Barrow region. Brower shot two on the fourth of July, many years ago, and McIlhenny collected two in rusty plumage, June 25, 1898. One bird was seen over the village in July, 1930.

Charadrius semipalmatus Semipalmated Plover. This is a rare straggler in the area. The first specimen collected was one by Hendee, now in the C.M.N.H. collection, from Wainwright, June 2, 1922; another one, an adult male (L.B.B. 45806) was taken by Brower at Barrow, June 16, 1930, and R. M. Barnes has a specimen taken by Mrs. Greist in 1930. The species was first observed by Nelson, who saw a pair feeding on the sandy beach August 18, 1881.²⁰

Eudromias morinellus Dotterel. The second record of this species for continental North America was made when Brower collected a pair (L.B.B. 45802-3), the male on June 14, 1930, and the female two days later; the female would have laid within a few days. The first recorded were taken at Cape Prince of Wales on June 15 and 19, 1929,²¹ and a third at Wales, in 1931. The fact that the dotterel should be taken along the Alaskan coast in three successive years, and that there are other records of Asiatic visitors, shows that stragglers from the Siberian shore are more common than is realized.

Pluvialis dominica dominica American Golden Plover

Pluvialis dominica fulva Pacific Golden Plover. These two forms are so similar that field identification is impossible, so our knowledge of their range depends upon specimens collected. The Barrow region appears to be the meeting place of the two races; the common bird at the village of Barrow is *dominica*, while that at Wainwright, just a hundred miles down the coast, is *fulva*, if the few specimens collected in each place are bases for such a statement. There are two birds from Barrow, which appear to be *fulva* (L.B.B. 45812-3), adult females taken June 4 and 24, 1930, while the majority of birds taken by Bailey and Hendee at Wainwright were also the *fulva*; many, however, were intermediate.²² There are many specimens of *dominica* from Barrow in the L.B.B. and C.A.S. collections.

The plovers arrive about the first week in June, and scatter over the tundra in pairs; they are vociferous at this time, and may be heard calling at all hours. They vary in numbers in different years; sometimes they nest in abundance, as many as twenty nests being observed in a single season, while at other times only one or two nests are found. The birds seem to be more plentiful inland than along the coast, probably due to the fact that reindeer have been grazing along the coast for so many years that the birds have been forced back along the rivers. The plovers choose rather high ground to nest upon, the eggs being placed in cuplike depressions in the moss. Brower has found that both sexes incubate the eggs.

Squatarola squatarola Black-bellied Plover. This species is irregular in its occurrence; some years very few will be seen, while during others it will be fairly common. They nest on high ground in the same locality preferred by the buff-breasted sandpipers, and Brower has succeeded in obtaining a fine series of eggs from the vicinity of Barrow.

Arenaria interpres morinella Ruddy Turnstone. These beautiful waders are not abundant within the area; a few pass in migration in spring and fall, and a limited number remain throughout the season. They nest in the open, depositing the eggs upon a black bit of earth or dark colored moss, and often-times the adult will be seen before it flushes from the nest. In 1928 Brower located four nests in an area of thirty square feet, the only time he ever found more than one set in a given locality.

20. E. W. Nelson, Auk, II, 239, 1885.

21. A. M. Bailey, Condor, XXXII, 161, 1930

22. Ibid. XXVIII, 85, 1926.

Phaeopus borealis Eskimo Curlew. This bird, which is nearly extinct, is recorded from Barrow by Murdoch. Even in 1882, it was not a common form. Of this fine bird, known to the Eskimos as "tura-tura," Murdoch says, "This is a rather irregular summer visitor, and by no means common, although well known to the natives. In the spring of 1882 it was the first wader to arrive, but in 1883 we saw none at all. Two flocks of about twelve each arrived on May 20, when there was still much snow on the tundra and in the lagoons, moving up the beach toward the northeast. No others were seen until the first week in July when two were noticed, one associating with a flock of golden plovers and knots. One taken at the time, was already moulting."

Calidris canutus rufus American Knot. These are regular, although rather rare migrants along the coast in spring and fall. They nest far to the eastward, apparently, for they are not seen during the summer months; a few stragglers, adults and young, pass along the coast in the fall. It is quite probable that the species uses the Colville valley as a short cut to the Pacific coast. Bailey took two immature males at Wainwright August 15 and 16, 1921, and there are several specimens in the L.B.B. collection taken by Brower at Barrow, and one in the C.A.S. (5256) secured June 18, 1931. The last mentioned was a belly-picked bird, and was possibly nesting in the vicinity.

Pisobia melanotos Pectoral Sandpiper. These sandpipers are common breeding birds of the area; they arrive about the first of June and begin their courtship antics. Their nests are well concealed in long grass upon the ridges; Brower has collected several sets during the past few years. Excellent accounts of their mating and nesting have been written by Nelson and by Murdoch, and the reader is referred to their articles. The birds have a wide breeding range which extends from the Yukon northward along the entire coast.

Pisobia fuscicollis White-rumped Sandpiper. This is a rare straggler in the region, apparently, for few have been observed. Murdoch took two (June 6 and July 6, 1883). Five were collected by the McIlhenny expedition in June, 1898, and all were in full nuptial plumage, showing no signs of moult; the next observed were by Hendee at Wainwright when he saw several about the village on June 27, 1922. He collected a specimen on July 3 and observed that, although the bird resembled the Baird sandpiper upon the ground, "it attracted my attention by trying to escape by running, whereas the Baird sandpiper almost invariably flies. On wing, the white rump was conspicuous, the heavier marking on the breast being also noticeable".²³ It is possible the bird is more common than supposed, and that it has been overlooked by the few naturalists who have worked the region, because of its similarity to Baird's sandpiper.

Pisobia bairdi Baird's Sandpiper. These are common nesting birds of the region. They first appear the latter part of May, and are plentiful by the second week of June. They are not seen in flocks at this time, but are scattered over the arctic prairies in pairs. The nests are on the higher ridges, along salt water lagoons, in dried grass, or upon the bare tundra, with little covering. The reader is referred to Dixon's "The Home Life of the Baird's Sandpiper"²⁴ and Bailey's notes²⁵ for data on their mating habits. They nest from the Yukon River to at least as far east as Demarcation Point.

23. Ibid, XXVII, 31, 1925.

24. Joseph Dixon, Condor, XIX, 77-84, 1917.

25. Bailey, Condor, XXVIII, 32.

Pisobia minutilla Least Sandpiper. We find but two records for this species from the region, one taken by Hendee at Wainwright, on August 6, 1922 ²⁶ and the other a set of eggs and an adult taken at Barrow by Mrs. Greist during the summer of 1932 in the R. M. Barnes collection.

Pisobia ruficollis Rufous-necked Sandpiper. This little Siberian shore bird is a straggler along the coast, although it probably breeds, because the only record from the area was a bird of the year. It was collected on August 15, 1922 by Hendee, and is now in the collection of the C.M.N.H.. ²⁷

Erolia testacea Curlew Sandpiper. The only record from Alaska for this species is an adult male in full breeding plumage, taken by Murdoch on June 6, 1883, at Barrow. "It was in company with a good sized flock of *Actrodromas maculata*" (*P. melanotos*).

Pelidna alpina sakhalina Red-backed Sandpiper. The most common of the sandpipers in the Barrow region; they arrive the latter part of May, and are conspicuous upon the snow-dotted tundra from that time on. They do not seem to have any particular choice in nesting sites, the four protectively colored eggs being placed in cup-like nests lined with willow leaves and moss, in dried grass upon the ridges or in marshy areas. They start nesting in the middle of June, and downy young are seen by the second week of July. The adults and young of the year form large flocks the latter part of August and feed along the sandy shores of the lagoons; the southward migration begins early in September, and only an occasional straggler is apt to be seen after the middle of the month. ("*Sakhalina*, the bird of northeastern Asia, is easily separable from the American race, as the bill of the latter is much longer in both sexes, and the latter should be called *P. a. pacifica*." *L.B.B.*).

Limnodromus griseus scolopaceus Long-billed Dowitcher. Dowitchers are common during the spring and fall migrations, and a few adults remain during the summer. A few undoubtedly nest in the region although no nests have been reported. Murdoch collected a pair of belly-picked adults on June 28, 1883, which he took to be breeding birds. The majority of these birds nest to the eastward of the region under consideration, however, and in the late summer many birds of the year appear, feeding on the tundra close to the village. They were fairly plentiful near Wainwright, August 9-22, 1921. Brower secured a belly-picked adult at Barrow (C.A.S. 5157) June 13, 1931.

Ereunetes pusillus Semipalmated Sandpiper. This little shore bird is fairly common locally, but one may spend an entire season in a given region and not see one. A single specimen was collected at Wainwright, August 26, 1921, the only semi-palmated observed by Bailey and Hendee during that season. The following year they were fairly common about the village during the middle of August. Brower reports that there are two areas near Barrow where they may be seen, one, about five miles south of the village on a ridge between two rivers, and the other, on the high ground bordering the Chipp River. This is a favored locality of the black-bellied plover and the buff-breasted sandpiper.

Ereunetes maurii Western Sandpiper. This is merely a straggler along the northern coast, although occasionally a few breed; the main breeding ground is far to the south. Brower took two juvenile specimens, apparently male and

26. Ibid.,

27. Ibid., 33.

female (L.B.B. 41344-5) August 24, 1927, and an adult with a set of three eggs on July 10, 1923.²⁸ Mr. R. M. Barnes reports a set of eggs and an adult taken by Mrs. Greist during the summer of 1931.

Tryngites subruficollis Buff-breasted Sandpiper. Murdoch reports this as a common form at Barrow during 1882-3, and collected eggs "in considerable abundance." This is another species which has probably become fewer in number, for while it occurs regularly, it must be considered rather rare in the area. In 1930 it was "fairly common," however, according to Brower, along the Chipp River, and he collected a set of four eggs (W. C. Hanna collection) with the adult (C. A. S. 5253). He also took a set of two on July 13, 1923, which are in the C. M.N.H. collection, and a set of four along the Chipp River, June 25, 1932 (Hanna collection). Hendee collected one of a pair seen at Wainwright August 11, 1921, and five on June 28 and 29, 1922. Brower was told by the reindeer herders that on two occasions they saw buff-breasted sandpipers incubating black-bellied plover's eggs, while the plovers stood near.

Limosa fedoa Marbled Godwit. This species is included in the list on the basis of a single specimen, a bird of the year, collected by McIlhenny on August 26, 1897.²⁹

Limosa lapponica baueri Pacific Godwit. This must be considered a rather rare species in the region, although it occurs regularly. There are several adults in the L. B. B. and C. A. S. collections, taken in June and July, and juveniles taken in August. The migration southward occurs about mid-August, and the only records for Wainwright were at this time,--birds of the year collected on August 11, 13, and 17, 1921, and August 13 and 16, 1922. The godwits are pugnacious fellows, and dart at the intruder in their nesting range; whenever jaegers, snowy owls, or other large birds come near, they are promptly put to flight. Bent³⁰ mentions that the young straggle northward after the breeding season, but the godwits appear to be regular breeding birds, for we have several records. A set of four eggs taken along the Meade River, June 20, 1932, is in the Hanna collection. The adult is C. A. S. 5839.

Limosa haemastica Hudsonian Godwit. The only specimens from the Barrow region are two obtained by McIlhenny, July 14, 1898. Stone describes them as follows: "they are slightly mottled with new gray feathers above and below, and show a number of pinfeathers beneath the plumage, but there is no indication of moult in the flight feathers."

Crocethia alba Sanderling. These shore birds occur regularly in spring and fall, but they are not common. Although they undoubtedly nest to the eastward of this region, they return on their fall flight by mid-August. Young of the year are seen at that time, and there are several in the L. B. B. collection (August 18, September 15). No nests have been found in the Barrow area. Murdoch failed to note the species in two years' stay at the station, and Bailey secured only a few during the fall of 1921 at Wainwright, and none in 1922. An adult male and female collected by Brower at Barrow June 5, 1928, (L.B.B. 42812-3) might suggest that the species breeds there.

28. Ibid., 35.

29. Stone, op. cit.

30. A. C. Bent, Bull. U. S. Nat. Mus. 142, 294, 1917.

Eurynorhynchus pygmeus Spoon-bill Sandpiper. This straggler from Siberia is included in the North American list on the basis of one collected on the Choris Peninsula years ago and two specimens collected along Wainwright Inlet by Fred Granville, August 15, 1914.³¹ Considerable field work has been carried on at Wainwright since that time by Dixon, Bailey, and Hendee without other specimens being observed.

Phalaropus fulicarius Red Phalarope. This is a very common nesting bird of the region, the first arrivals appearing with the migrating ducks the latter part of May. They prefer rather long grass in moist areas of the tundra for nesting sites, and fresh eggs are found from June 20 to July 15. Young birds, with downy heads, but able to fly, are found in all the tundra pools by mid-August; they form flocks of several hundreds in the latter part of August, and feed along the sandy shores of lagoons and inlets. The adults seem to leave as soon as the young are able to shift for themselves, for few are seen after the first of September. The young, however, remain until the latter part of the month—the last to be noted at Wainwright in 1921 passed on September 28. It is not unusual, during the summer, to find flocks of adults, which are apparently non-breeding birds, and occasionally, a few in winter dress will be seen. Hendee collected two in this plumage, June 26, 1922, at Wainwright, and Brower took a few during 1930 at Barrow.

Lobipes lobates Northern Phalarope. These little phalaropes occur regularly in small numbers. Murdoch mentions this species as a "mere straggler," and its status is the same after fifty years. Bailey and Hendee collected two at Wainwright in the fall of 1921 (August 23), and Hendee saw two the next spring, (June 26—July 3). Brower has noted them nearly every year at Barrow, and collected a set of eggs in the summer of 1930, which are now in the collection of W. C. Hanna.

Stercorarius pomarinus Pomarine Jaeger. These large jaegers are common nesting birds of the region. They arrive the last week in May. Hendee reported them common at Wainwright early in June, over the lead, usually in pairs. On June 21, a few appeared to be located for breeding, and a nest with three eggs was found upon the tundra June 29.³² These "tundra hawks" are extremely predaceous, robbing other birds of their eggs and young at every opportunity. Brower relates that on one occasion a jaeger attacked a snowy owl, forcing it to the ground, and after swooping repeatedly, killed the owl. Brower has taken many specimens, and several sets of eggs the past few years.

Stercorarius parasiticus Parasitic Jaeger. These are common birds at Wainwright and Barrow. They arrive the latter part of May and nest commonly upon the tundra. They are undoubtedly responsible for many of the broken nests of eider and brant which are found from time to time. Both color phases are common, about one in three being of the dark phase. They leave for the south early in September, and the majority are gone by the middle of the month.

Stercorarius longicaudus Long-tailed Jaeger. This is usually a rather rare species at Barrow and the near vicinity, although it is more plentiful some seasons than others. During the fall of 1921, Bailey and Hendee did not record a specimen from Wainwright, and very few were seen the next season, the first being taken June 9. They nest, however, throughout the area.

31 . Joseph Dixon, Auk, XXXV, 387, 1918.

32. Bailey, Condor, XXVII, 101, 1925.

Larus hyperboreus Glaucous Gull. This is a common bird during migration and the summer months. They arrive early with the first appearance of open water; Hendee reported his first glaucous gull on April 12. They nest rather sparingly along the shores of the large tundra ponds, and most of them leave for the south by the middle of September. There is a distinct gull migration each fall, and when this migration occurs, there is an apparently endless chain of birds straggling down the coast. The flight in 1922 occurred on September 16. Brower has collected a large series of gulls for Bishop and for the Chicago Academy of Sciences, and these specimens range from the immature to the fully adult birds.

Larus nelsoni Nelson's Gull. Stone recorded a male, taken by E. A. McIlhenny September 5, 1897 (P.A.N.S. 37692). Among the birds collected by Brower was one which Bishop identified as *nelsoni*. He concludes: "In adults, birds of this species differ from *hyperboreus* in the same manner as *kumlieni* does from *leucopterus* that is, by having a gray spot on the outer web of the second primary near the tip. In the first year young *kumlieni* differ from *leucopterus* by having the tail almost solid gray, instead of heavily spotted with white, as Dr. Dwight showed was the case in his paper on the white-winged gulls in the Auk some years ago. (How he made the error later in his 'Gulls of the World,' of calling this same bird the second winter plumage of *leucopterus* is hard to understand, as he knew perfectly that none of the white-tailed gulls have less white on the tails the second year than the first). A gull in the second year, but with the first-year tail unmoulted, collected at Barrow August 31, 1927 (L.B.B. 41313), differs from *hyperboreus* of similar age in just this manner,—by having the tail almost solid gray instead of heavily spotted with white. It seems altogether probable this bird represents the hitherto unknown young of *Larus nelsoni*, and indicates it is a valid species." It will be noted that the new check list has placed this species in the hypothetical list, as it was considered a hybrid.

Larus leucopterus Iceland Gull. This species is added to the Barrow list on the basis of specimens in the L. B. Bishop collection and an immature in the collection of the C. A. S. Bishop writes: "A female gull in the third year, collected October 2, 1929, (L.B.B. 44240) is distinguishable from *leucopterus* from Greenland only by having a slightly larger bill, and must be called *leucopterus*. In my collection another Alaskan gull, an adult male, collected at Wainwright June 19, 1922, (40564), is the size and color of adult *leucopterus*, but has a slightly larger bill the shape of that of *hyperboreus*. Whether to call this bird *leucopterus*, a dwarf *hyperboreus*, or a hybrid between the two is problematical."

Larus kumlieni Kumlien's Gull. The first record for this species is given by Murdoch on the basis of a "dark and small immature bird" (U. S. Nat. Mus. No. 93306), which was identified by Mr. Ridgway, but the specimen has been re-examined and Dr. Wetmore states that it proves to be *Larus glaucescens*. There are, however, three young birds in the L.B.B. collection of which Bishop says:—"a male collected September 10, 1928, (42933), and a male and female collected October 8 and 16, 1929, (44241-2) are indistinguishable from first winter *kumlieni* in my collection from New Brunswick, except that two have slightly larger bills; while a female in the second year, collected September 10, 1929, (44239), agrees closely with a bird from New Brunswick which I believe is a second year *kumlieni*, and both differ from *leucopterus* in having a slightly brownish wash on the outer webs of the outer primaries,—a character to be expected in this species." The new check list places *kumlieni* in the hypothetical list, but we prefer to place it in its order, as we believe it distinct.

Larus glaucescens Glaucous-winged Gull. Murdoch collected and listed a "dark and small immature bird" (U. S. Nat. Mus. No. 93306) which was identified as *Larus kumlieni* by Mr. Ridgway. Dr. Alexander Wetmore had this specimen re-examined for us, and it proves to be *Larus glaucescens*, the only record we find from this area.

Larus schistisagus Slaty-backed Gull. One specimen, an immature bird, taken by Bailey and Hendee at Icy Cape, September 16, 1921, was identified by Bishop as this species. It is No. 9786 in the Colorado Museum of Natural History collection.

Larus argentatus smithsonianus Herring Gull. There are two specimens from Wainwright in the Colorado Museum of Natural History, one an adult male collected September 3, 1921, and the other an immature taken September 16, 1921. The adult male approached *vegae* in size. Three young were collected at Barrow by Brower on October 9, 1929, and September 9 and 29, 1931, (L.B.B. 44243 and 48390-1).

Larus argentatus thayeri Thayer's Gull. The first specimen recorded from the region was one taken at Icy Cape, September 16, 1921. It was an immature male. Additional specimens have been collected by Brower from time to time. There are ten in the L.B.B. collection-four juvenile females, four second year birds, a male in the third year, and a female in the fourth year and a young female taken September 24, 1931. There are also a half dozen immatures and a third year bird in the C.A.S. collection.

In comparing the plumage of the juveniles of *argentatus* and *smithsonianus* with *thayeri*, Bishop finds that the former have primaries and rectrices of clear, brownish black, becoming more brown through the winter; in *thayeri* these are dark hair brown in September, fading to light drab by March. In *argentatus* and *smithsonianus* the darker parts of the rest of the plumage are fuscus in September, becoming browner and paler through the winter; in *thayeri* the dark parts closely approach the hair brown of the wings and tail in September, and fade to light drab and drab-gray during the winter.

Larus canus brachyrhynchus Short-billed Gull. The first specimen recorded from the region was one taken by Bailey and Hendee at Wainwright, September 2, 1921 (C.M.N.H.) Brower collected two others, a young male September 1, 1928, and a juvenile female August 15, 1929, (L.B.B. 42755 and 46122).

Pagophila alba Ivory Gull. This beautiful species is a more or less regular visitor at Barrow in the fall, and occasionally in the spring. They appear offshore in October, working over the floes or following along the shore ice. Bailey saw several between Wainwright and Atanuk, October 24, 1922, and possibly 100 at Barrow October 30. The shore ice was freezing at this date (18° F below), and the birds were flying low over the "welling" slack ice. Hendee, the following season, reported the first, at Wainwright on May 18, over the whaling camp seven miles offshore. Brower states that the ivory gulls are most numerous during the westernly winds, and that at this time, the birds feed upon a "scum" on the water; their throats are usually full of this matter which stains their plumage.

Rissa tridactyla pollicaris Pacific Kittiwake. This species is common during the spring and fall migration. Murdoch apparently did not observe the species

during his two years' work. Bailey saw a few at Barrow August 8, 1921, and at Cape Halkett the 10th, and several hundred at Wainwright September 7. There was a migration southward on this date, when hundreds were flying offshore. Curiously enough, Hendee did not see a single bird at Wainwright in the early spring of 1922, the first being taken July 10. There are specimens in the L.B.B. and C.A.S. collections.

Rhodostethia rosea Ross Gull. These beautiful gulls seem to be extremely rare along the Alaskan coast, except near the northern point where they occur more or less regularly in October. They come in from offshore with the north-west winds, working south along the shore, and they are easily decoyed by a waving handkerchief; Brower has collected many specimens in recent years at Barrow, and Bailey secured a small series at Wainwright, one hundred miles down the coast. They occur only as stragglers in the spring when a few may be taken about the whaling camps. Murdoch reported the Ross gull common in the fall of 1881-2 and made extensive notes on their behavior. Bailey lists many fall records, and one, an adult, taken in the summer (July 24).

Xema sabini Sabine Gull. These gulls arrive along the northern coast the latter part of May, (Wainwright, May 28), and nest more or less commonly along the shore and upon small islands of tundra lakes. They appear irregular in their habits, however, as is true of many of the arctic birds, and they will be numerous one season, while only a few will be seen the next. The majority, young and adults, are well on their way south the third week in September.

Sterna paradisaea Arctic Tern. These beautiful little sea birds do not arrive along the Arctic coast until June, as a rule, and they go directly to their breeding grounds - sandy islands of the big lagoons, or on the deltas built up by tundra streams. They leave early in the fall, the bulk of them disappearing by the first week of September. Murdoch reported no terns after August 10. Bailey noted the main migration at Icy Cape September 7. He observed, "many large flocks were composed almost entirely of young terns, although an adult usually accompanied them. They often hovered overhead, the whole flock poised with forked tails spread, complaining in the usual querulous, tern-like fashion. Many flocks stopped to rest on the sand beaches, a prolonged flight, doubtless, being too much for their untried wings." ³³ Brower reports fresh eggs from June 27 to July 7.

Uria lomvia arra Pallas' Murre. This is a common form during the spring and fall migration. Hendee reported them extremely abundant, flying in flocks of hundreds, on May 9 and 10, 1922, there being no lead of open water at the time. The flight continued for several days, whenever the wind was from the south, or when it was calm. ³⁴ They usually appear at Barrow after the main flight of eiders has passed. Murdoch reports them as rare stragglers, but it is necessary to go offshore to observe the migration of many waterfowl, so he probably missed the big flight. He reports one late record, a specimen taken by seal hunters, December 9, 1882. Stone called the seventeen specimens taken by McIlhenny, *lomvia*, but the measurements of the wings average nearer the western rather than the eastern form. The new check list mentions *arra* as being "casual at Point Barrow," but the form occurs regularly, and not uncommonly.

33. Ibid., 107.

34. Ibid., 66.



SNOWY OWL

Cepphus grylle mandti Mandt's Guillemot. This is a common form in winter, where there is open water. The Eskimos claim that the birds live under the ice, just as do the seals, getting their air from under pressure ridges. Mr. Brower relates that on one occasion, while watching at a seal hole with apparently no open water near for miles, he was surprised to have a guillemot bob to the surface. There are two juveniles, two yearling males and four adults in the L.B.B. collection, and several others from Barrow in the collection of the Academy.

Brachyramphus brevirostris Kittlitz Murrelet. The first records from this region were two taken by H. W. Hendee at Wainwright on June 9, 1922. They were in an open lead in the ice pack. The natives had a name for the birds "ig-ir-ook"—although many of the old hunters did not know them. Specimens have been taken the past few years in the late summer and fall months, some from the drift right at the Point. There are seven adults in the L.B.B. and four in the C.A.S. collection, which were taken between August and October.

Aethia cristatella Crested Auklet. These little divers are wanderers that have come north after the breeding season, for they appear offshore in small numbers in late summer. Specimens have been taken in the last few years, and several are in the L.B.B. and C.A.S. collections.

Aethia pusilla Least Auklet. The least auklets are rare stragglers along the northern coast in the late summer. The first was taken by E. A. McIlhenny, August 30, 1897,³⁵ a second specimen was collected by Brower October 11, 1925, and another by J. A. Allen, on the same date, from Wainwright, one hundred miles down the coast. Others were taken at Barrow August 16, 1930 and September 25 and 30, 1931. All the birds were found where there were scattering ice fields.

Bubo virginianus algistus St. Michael Horned Owl. An occasional horned owl wanders from the woods of the interior to the tundra country. The only record we have from the area is a large specimen, probably a female, found dead upon the tundra thirty miles from Barrow, November 14, 1929, (L.B.B. 45818).

Nyctea nyctea Snowy Owl. This is usually a common bird throughout the arctic, but there are years when few are seen. When lemming are abundant, the owls will be very common and nest abundantly, but when lemming are few in number, the birds will be scarce. The owls are resident the year around, and nest on tundra knolls.

Asio flammeus Short-eared Owl. This is a common form on the tundra, back from the coast, but Brower has succeeded in finding only one nest. The numbers of birds fluctuate with the abundance of lemming; if the small mammals are plentiful, there are sure to be many short-eared owls. There are several specimens from the area in the L.B.B., the C.M.N.H. and the C.A.S. collections, and a set of four eggs taken along the Tuparrow River on June 25, 1932, in the Hanna collection.

Colaptes auratus luteus Northern Flicker. The natives claim that these birds are not uncommon along the wooded valleys near the foothills, but we have only two definite records. The first was recorded in the Condor³⁶ as *Colaptes auratus borealis*, a specimen taken at Wainwright in 1924 by C. M. Andrews (adult female, Mus. Vert. Zool., No. 45092), while the second was a young female collected at Cape Halkett in the fall of 1927, (L.B.B. 42959).

Tyrannus tyrannus Eastern Kingbird. Another visitor was secured far out of its range when a native caught an adult female near the village on June 17, 1931 (C.A.S. 5255).

Sayornis saya Say's Phoebe. The first record we have for this bird for the area is an unsexed adult (C.A.S. 5805), taken by Brower at Barrow, May 27, 1932.

Myiochanes richardsoni richardsoni Western Wood Peewee. A single specimen has been taken at Barrow. Stone records that "one female, secured July 1, 1898, materially extends the northward distribution of the species. The bird is interesting as it is renewing the outermost primaries of the left wing, which had evidently been accidentally lost. Instances of renewal of retrices are common, but this is the first instance that has come to my notice, of the renewal of a remex."

Otocoris alpestris arcticola Pallid Horned Lark. The only one recorded from the region is an adult female (L.B.B. 42835), collected by Brower, May 31, 1928.

35. Stone, op. cit.

36. Bailey, Condor, XXVII, 126, 1925.

Tachycineta thalassina lepida Violet-green Swallow. Brower obtained one in juvenal plumage, August 26, 1929 (L.B.B. 46156).

Iridoprocne bicolor Tree Swallow. Brower collected an immature August 26, 1929 (C.A.S. 2400).

Riparia riparia riparia Bank Swallow. This is an irregular visitor to the Barrow region, usually in the fall, after the breeding season. Murdoch observed a few swallows during the summer and fall months, but failed to collect specimens, other than one which was found dead. Hendee observed a flock of seven at Wainwright, August 10, 1922, but he also was unable to collect one, so the record is open to doubt, as swallows are difficult to identify on the wing. Brower secured one in juvenal plumage, August 26, 1929, (L.B.B. 46157). It will be noted that he collected three species of swallows on this date.

Riparia riparia ijimae Siberian Bank Swallow. This record for North America is based upon an immature collected by Brower, September 15, 1928. The specimen (C.A.S. 2100) was submitted to the late Mr. Outram Bangs for identification, and he compared it with specimens in the Museum of Comparative Zoology. He writes—"it exactly matches *Riparia riparia ijimae* (Lönnerberg) of Sackalina Island and east Siberia, of which we have plenty of skins. It is much darker than any specimens we have of *riparia riparia* from anywhere here in the east. The question, then, naturally comes,—is it a stray migrant of *ijimae*, as is perfectly likely, or is it an exceptional variant of *riparia*? I can assure you it is an exact match for *ijimae*, and I believe it is an example of that form." ³⁷

Hirundo erythrogaster Barn Swallow. This is a rare and irregular visitor to the Barrow region, and Brower has observed it only a few times. He collected two specimens (L.B.B. 43836 and 45826), an adult male and female, secured July 1, 1929 and June 4, 1930. Another adult male was taken in July, 1931 (C.A.S. 5254).

Corvus corax principalis Northern Raven. This species has not been taken on the coast, but Brower obtained a specimen from along the Meade River. It was an adult female (L.B.B. 42960), and was collected September 10, 1928. This species prefers abrupt cliffs to low tundra, and is fairly common near Cape Beaufort and Cape Lisburne, some hundred miles below the limit of the Barrow area.

Nannus hiemalis pacificus Western Winter Wren. A specimen, found dead, was secured by Brower, October 5, 1929 (L.B.B. 44274).

Turdus migratorius migratorius Eastern Robin. Another wanderer was obtained when an Eskimo boy caught an adult male of this species on May 14, 1930 (L.B.B. 45828). It was first seen out on the sea ice, and it was very tame. The tundra was covered with snow. Another was taken during the summer of 1931, which was preserved by Mrs. Henry Geist during Mr. Brower's absence (C.A.S. 5238).

Hylocichla minima aliciae Gray-checked Thrush. The McIlhenny expedition secured two specimens, an adult male from near Point Tangent, May 27, 1898, and one near Barrow June 10. Brower took two specimens from near

37. Bailey, Auk, XLVI, 550, 1929.

Barrow, an adult male, September 1, 1928 (L.B.B. 42849), and a young bird, August 29, 1929 (L.B.B. 46159). This young bird is as small as average specimens of *Hylocichla minima minima*, with an even shorter tail.

Sialia currucoides Mountain Bluebird. Brower took two adult females at Barrow, June 5, 1930 (C.A.S. 4400 and L.B.B. 45831). They are the only records we find for the region.

Oenanthe oenanthe oenanthe Wheatear. This species is an irregular visitor, being seen more or less commonly one season, while few will be observed the next. They were numerous upon the tundra in the spring migration of 1882, but none was observed in 1883.³⁸ They are present in both the spring and fall, but have not been recorded as breeding in the area. Bailey and Hendee secured several specimens at Wainwright the third week of August, 1921, and Brower has taken a half dozen or more within the past few years, which are in the L. B.B. and C.A.S. collections.

Cyanosylvia suecica Red-spotted Bluethroat. The first specimen of this beautiful little bird, an adult male, was secured May 30, 1926, (C.A.S. 5122) at Barrow by Brower, and an adult female (L.B.B. 42964) was collected with a set of five eggs (L.B.B. set 3582), on the Meade River about thirty miles inland, in July, 1928. Two additional specimens, females (C.A.S. 5791-2) were secured on June 18, 1932 along the Meade River with their eggs (both sets of six each are in the Hanna collection) and a female (C.A.S. 5897) with eggs from the same locality, June 20, 1932. The eggs are in the Academy collection.

Acanthopneuste borealis kennicotti Kennicott's Willow Warbler. Hendee secured a specimen which was picked up dead, about June 20, 1922, at Icy Cape, and Brower secured an adult female at Barrow, July 9, 1932 (C.A.S. 5827).

Corthylio calendula calendula Ruby-crowned Kinglet. Brower secured an adult male from Cape Halkett, during the fall of 1921, (C.M.N.H.) and another adult male at Barrow, April 30, 1932 (L.B.B. 48914). The natives report the species not uncommon inland, where it breeds among the willows. The specimen is in the C.M.N.H. collection.

Motacilla flava alasensis Alaska Yellow Wagtail. This is another species which is rare along the coast, but which is not uncommon along the willow-grown valleys of the interior. Three were taken by the McIlhenny expedition, an adult male, June 12, 1898, and two young, August 8, 1898. An adult female (L.B.B. 42963) was taken with a set of five eggs (L.B.B. 3581), along the Meade River in July, 1928, and five others were collected from June 21 to 25 (L.B.B. 48912-3; C.A.S. 5824-5-6), with four sets of five eggs each, now in the Hanna collection.

Anthus spinoletta rubescens American Pipit. Hendee collected a specimen at Wainwright September 28, 1921,³⁹ and Brower secured a specimen (C.A.S. 5825) from along the Meade River June 20, 1932. Two sets of eggs were secured - one of four, June 29, and the other of six on June 25 (Hanna collection).

Vermivora celata celata Orange-crowned Warbler. An adult male was secured by Brower, inland from the village of Barrow, June 5, 1928 (L.B.B. 42848).

38. John Murdoch, Rep. International Polar Expedition 1885.

39. A. M. Bailey, Condor, XXVIII, 170, 1926.

Dendroica aestiva rubiginosa Alaska Yellow Warbler. Hendee saw one of this species at Wainwright, August 17, 1921, and a native brought a specimen to Bailey from Icy Cape, October 8, 1921. The tundra had been snow-covered for weeks and the specimen was extremely emaciated, although in fine feather.

Dendroica coronata Myrtle Warbler. This is another straggler within the region. Brower secured an adult male June 4, 1930 (L.B.B. 45827). The McIlhenny expedition took a single specimen, a male, at Point Tangent, June 3, 1898 (P.A.N.S. 37483).⁴⁰

Wilsonia pusilla pileolata Northern Pileolated Warbler. Brower has taken three specimens in the past few years, an adult male, September, 1928 (C. A. S. 2093), from along the Meade River and two young birds found dead during the same month (L.B.B. 42965 and 46158). It is probable that many small perching birds range north of the Endicotts, along the willow grown valleys, well into the area under consideration. There has been so little field work that many of these forms, which we call "mere stragglers," may prove on further work to be fairly common.

Oporornis tolmiei Macgillivray's Warbler. Among the specimens secured by Brower from along one of the rivers, a short distance inland from Barrow, was a fine adult male (C.A.S. 2099), on September 12, 1928.

Euphagus carolinus Rusty Blackbird. This species occurs occasionally, and several have been taken near the village of Barrow; Brower states that they are not uncommon near Cape Halkett, where they follow the reindeer herds. The first specimen secured Brower (C.M.N.H. 10904) was taken in July, 1924, at Barrow. Another, (C.A.S. 2401), an adult male was secured September 29, 1929, and two others, an adult and a young male were collected July 1, 1929 and October 1, 1929 (L.B.B. 43835 and 44270). The last observed was an adult male taken at Barrow, May 24, 1932, (C.A.S. 5482).

Acanthis hornemanni exilipes Hoary Redpoll. This is not a rare bird in the region. Murdoch reported a few about the village of Barrow and secured a set of three eggs. Brower has collected several in the past few years and observed them about the village each season; a pair nested under the walk near his station, and another pair had their nest on a boat rack. There are specimens collected by Brower in the L.B.B. and the C.A.S. collections. Several sets of eggs with the adults were collected in the willows along the Meade River in June, 1932. Specimens are in the Bishop and Hanna collections.

Acanthis linaria linaria Common Redpoll. This form which was first observed by Nelson is uncommon within the region. Murdoch and McIlhenny failed to record it. Hendee collected two specimens at Wainwright, June 13, 1922 (C.M.N.H. 9410 and 9414) and reported them numerous in small flocks, between June 17 and 24.

Passerculus sandwichensis alaudinus Western Savannah Sparrow. Brower secured an adult female from near Dease Inlet (L.B.B. 42845) June 30, 1928. Five breeding birds were taken along the Meade River in June, 1932 (L.B.B. 48909-10; C.A.S. 5801-2 and 5896). Four sets of eggs are in the Hanna collection and two in the Chicago Academy of Sciences.

⁴⁰. Stone, op. cit.

Passerculus sandwichensis sandwichensis Aleutian Savannah Sparrow. The only record for the region is an adult collected at Wainwright by Bailey and Hendee, October 5, 1921; snow covered the tundra to such a depth that the grass seeds and willow twigs were barely exposed.⁴¹

Junco hyemalis hyemalis Slate-colored Junco. This little sparrow is a regular but uncommon visitor to the region. Murdoch took a male at Barrow, on May 24, 1883, and Bailey collected another male on September 16, 1921, at Wainwright. Brower has taken a few specimens, four of which are in the L.B.B. collection, an adult female, collected June 6, 1928, two unsexed young, September 17 and 30, 1929, and an adult male, June 9, 1930. "These birds although not typical, are nearer to *hyemalis* than to other races described" (Bishop).

Spizella arborea ochracea Western Tree Sparrow. The Barrow region is within the breeding range of this bird, but it is a rare species. Brower secured an adult (L.B.B. 42962) with four eggs (L.B.B. 3580) from along the Meade River in July, 1928. He secured three other specimens, two females and a male, June 9, 1932 (L.B.B. 48911; C.A.S. 5793-4).

Spizella passerina arizonae Western Chipping Sparrow. There is only one record, so far as we know, for this species. Brower secured a young male (?) at Barrow, September 18, 1929 (L.B.B. 44273).

Zonotrichia leucophrys gambeli Gambel's Sparrow. Murdoch took a young of the year on September 14, 1883, at Barrow, which he listed under *intermedia*, (U. S. Nat. Mus. No. 93131) and McIlhenny collected a female June 18, 1898, which Stone recorded as *nuttalli* (P.A.N.S. 37484). Hendee took two specimens at Wainwright, May 29, 1922, and Brower took an adult female at Barrow June 6, 1928 (L.B.B. 42846). He secured another (C.A.S. 5803) June 9, 1932. An adult male (L.B.B. 45824) collected May 14, 1930 is apparently an intergrade.

Passerella iliaca iliaca Eastern Fox Sparrow. The only record we have for the region is a female taken at Wainwright by Bailey and Hendee, on September 30, 1921.⁴²

Calcarius lapponicus alascensis Alaskan Longspur. Longspurs are very common upon the tundra. They do not arrive as early as the snow buntings, the majority appearing about the third week in May. The nests are depressions in the moss, lined with reindeer hair and an occasional ptarmigan feather, and five or six eggs make up the usual set. Many begin their fall moult the first week in July, and are in poor feather by the first week in August. The longspurs migrate south before the snowflakes, and few will be seen after September 1.

Calcarius pictus Smith's Longspur. McIlhenny secured a male, June 11, 1898, which was recorded by Stone.

Plectrophenax nivalis nivalis Eastern Snow Bunting. This beautiful little sparrow is a common bird throughout the area. The first arrivals often appear on the snow-covered tundra early in April (April 9, 1882 - April 11, 1922), but the majority do not appear until about the middle of May. They scatter over the

41. Bailey, Condor, XXVIII, 168.

42. Ibid., 169.

tundra, nesting under boulders or in sheltered places along cut banks. Often they nest about the houses, in the cornices of the buildings, on caches, or in bird boxes erected for them. Young are hatched by the first week in July, and fully fledged fellows are seen on the wing by the first of August. Then, when the gray skies of September come around, the snowflakes begin their autumn trek and gradually disappear; few will be seen by September 20. The last recorded in 1921 at Wainwright was on October 5th. The ice was a foot thick on the tundra ponds at this date.

Photographs by Alfred M. Bailey, used through the courtesy of the Colorado Museum of Natural History. Map drawn by Mary Cooper.

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